SEQUENCE LISTING

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CHIN, WIA-PAN
CHEN, LIN
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<120> METHODS FOR PRODUCING AND PURIFYING RECOMBINANT ALPHA-L-IDURONIDASE

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Arg Pro Leu Arg Pro Arg Ala Ala Leu Leu Ala Leu Leu Ala Ser Leu
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ctg gcc gcg ccc ccg gtg gcc ccg gcc gag gcc ccg cac ctg gtg cat    1656
Leu Ala Ala Pro Pro Val Ala Pro Ala Glu Ala Pro His Leu Val His
          20              25              30


gtg gac gcg gcc cgc gcg ctg tgg ccc ctg cgg cgc ttc tgg agg agc    1704
Val Asp Ala Ala Arg Ala Leu Trp Pro Leu Arg Arg Phe Trp Arg Ser
      35              40              45


aca ggc ttc tgc ccc ccg ctg cca cac agc cag gct gac cag tac gtg    1752
Thr Gly Phe Cys Pro Pro Leu Pro His Ser Gln Ala Asp Gln Tyr Val
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ctc agc tgg gac cag cag ctc aac ctc gcc tat gtg ggc gcc gtc cct    1800
Leu Ser Trp Asp Gln Gln Leu Asn Leu Ala Tyr Val Gly Ala Val Pro
              70              75              80


cac cgc ggc atc aag cag gtc cgg acc cac tgg ctg ctg gag ctt gtc    1848
His Arg Gly Ile Lys Gln Val Arg Thr His Trp Leu Leu Glu Leu Val
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acc acc agg ggg tcc act gga cgg ggc ctg agc tac aac ttc acc cac    1896
Thr Thr Arg Gly Ser Thr Gly Arg Gly Leu Ser Tyr Asn Phe Thr His
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ctg gac ggg tac ctg gac ctt ctc agg gag aac cag ctc ggg ttt gag    1944
Leu Asp Gly Tyr Leu Asp Leu Leu Arg Glu Asn Gln Leu Gly Phe Glu
 115             120             125


ctg atg ggc agc gcc tcg ggc cac ttc act gac ttt gag gac aag cag    1992
Leu Met Gly Ser Ala Ser Gly His Phe Thr Asp Phe Glu Asp Lys Gln
130             135             140             145


cag gtg ttt gag tgg aag gac ttg gtc tcc agc ctg gcc agg aga tac    2040
Gln Val Phe Glu Trp Lys Asp Leu Val Ser Ser Leu Ala Arg Arg Tyr
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atc ggt agg tac gga ctg gcg cat gtt tcc aag tgg aac ttc gag acg    2088
Ile Gly Arg Tyr Gly Leu Ala His Val Ser Lys Trp Asn Phe Glu Thr
              165             170             175


tgg aat gag cca gac cac cac gac ttt gac aac gtc tcc atg acc atg    2136
Trp Asn Glu Pro Asp His His Asp Phe Asp Asn Val Ser Met Thr Met
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caa ggc ttc ctg aac tac tac gat gcc tgc tcg gag ggt ctg cgc gcc    2184
Gln Gly Phe Leu Asn Tyr Tyr Asp Ala Cys Ser Glu Gly Leu Arg Ala
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Ala Ser Pro Ala Leu Arg Leu Gly Gly Pro Gly Asp Ser Phe His Thr
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cca ccg cga tcc ccg ctg agc tgg ggc ctc ctg cgc cac tgc cac gac        2280
Pro Pro Arg Ser Pro Leu Ser Trp Gly Leu Leu Arg His Cys His Asp
                230             235                 240

ggt acc aac ttc ttc act ggg gag gcg ggc gtg cgg ctg gac tac atc        2328
Gly Thr Asn Phe Phe Thr Gly Glu Ala Gly Val Arg Leu Asp Tyr Ile
                245             250                 255

tcc ctc cac agg aag ggt gcg cgc agc tcc atc tcc atc ctg gag cag        2376
Ser Leu His Arg Lys Gly Ala Arg Ser Ser Ile Ser Ile Leu Glu Gln
            260             265             270

gag aag gtc gtc gcg cag cag atc cgg cag ctc ttc ccc aag ttc gcg        2424
Glu Lys Val Val Ala Gln Gln Ile Arg Gln Leu Phe Pro Lys Phe Ala
            275             280             285

gac acc ccc att tac aac gac gag gcg gac ccg ctg gtg ggc tgg tcc        2472
Asp Thr Pro Ile Tyr Asn Asp Glu Ala Asp Pro Leu Val Gly Trp Ser
290             295                 300                 305

ctg cca cag ccg tgg agg gcg gac gtg acc tac gcg gcc atg gtg gtg        2520
Leu Pro Gln Pro Trp Arg Ala Asp Val Thr Tyr Ala Ala Met Val Val
                310             315                 320

aag gtc atc gcg cag cat cag aac ctg cta ctg gcc aac acc acc tcc        2568
Lys Val Ile Ala Gln His Gln Asn Leu Leu Leu Ala Asn Thr Thr Ser
                325             330             335

gcc ttc ccc tac gcg ctc ctg agc aac gac aat gcc ttc ctg agc tac        2616
Ala Phe Pro Tyr Ala Leu Leu Ser Asn Asp Asn Ala Phe Leu Ser Tyr
            340             345             350

cac ccg cac ccc ttc gcg cag cgc acg ctc acc gcg cgc ttc cag gtc        2664
His Pro His Pro Phe Ala Gln Arg Thr Leu Thr Ala Arg Phe Gln Val
            355             360             365

aac aac acc cgc ccg ccg cac gtg cag ctg ttg cgc aag ccg gtg ctc        2712
Asn Asn Thr Arg Pro Pro His Val Gln Leu Leu Arg Lys Pro Val Leu
370             375             380                 385

acg gcc atg ggg ctg ctg gcg ctg ctg gat gag gag cag ctc tgg gcc        2760
Thr Ala Met Gly Leu Leu Ala Leu Leu Asp Glu Glu Gln Leu Trp Ala
                390             395                 400

gaa gtg tcg cag gcc ggg acc gtc ctg gac agc aac cac acg gtg ggc        2808
Glu Val Ser Gln Ala Gly Thr Val Leu Asp Ser Asn His Thr Val Gly
                405             410                 415

gtc ctg gcc agc gcc cac cgc ccc cag ggc ccg gcc gac gcc tgg cgc        2856
Val Leu Ala Ser Ala His Arg Pro Gln Gly Pro Ala Asp Ala Trp Arg
            420             425                 430

gcc gcg gtg ctg atc tac gcg agc gac gac acc cgc gcc cac ccc aac        2904
Ala Ala Val Leu Ile Tyr Ala Ser Asp Asp Thr Arg Ala His Pro Asn
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ggc ctg gtc tac gtc acg cgc tac ctg gac aac ggg ctc tgc agc ccc    3000
Gly Leu Val Tyr Val Thr Arg Tyr Leu Asp Asn Gly Leu Cys Ser Pro
                470             475             480

gac ggc gag tgg cgg cgc ctg ggc cgg ccc gtc ttc ccc acg gca gag    3048
Asp Gly Glu Trp Arg Arg Leu Gly Arg Pro Val Phe Pro Thr Ala Glu
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cag ttc cgg cgc tag cgc gcg gct gag gac ccg gtg gcc gcg gcg ccc    3096
Gln Phe Arg Arg  *  Arg Ala Ala Glu Asp Pro Val Ala Ala Ala Pro
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cgc ccc tta ccc gcc ggc ggc cgc ctg agg ctg cgc ccc gcg ctg cgg    3144
Arg Pro Leu Pro Ala Gly Gly Arg Leu Arg Leu Arg Pro Ala Leu Arg
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ctg ccg tcg ctt ttg ctg gtg cac gtg tgt gcg cgc ccc gag aag ccg    3192
Leu Pro Ser Leu Leu Leu Val His Val Cys Ala Arg Pro Glu Lys Pro
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ccc ggg cag gtc acg cgg ctc cgc gcc ctg ccc ctg acc caa ggg cag    3240
Pro Gly Gln Val Thr Arg Leu Arg Ala Leu Pro Leu Thr Gln Gly Gln
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ctg gtt ctg gtc tgg tcg gat gaa cac gtg ggc tcc aag tgc ctg tgg    3288
Leu Val Leu Val Trp Ser Asp Glu His Val Gly Ser Lys Cys Leu Trp
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aca tac gag atc cag ttc tct cag gac ggt aag gcg tac acc ccg gtc    3336
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agc agg aag cca tcg acc ttc aac ctc ttt gtg ttc agc cca gac aca    3384
Ser Arg Lys Pro Ser Thr Phe Asn Leu Phe Val Phe Ser Pro Asp Thr
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ggt gct gtc tct ggc tcc tac cga gtt cga gcc ctg gac tac tgg gcc    3432
Gly Ala Val Ser Gly Ser Tyr Arg Val Arg Ala Leu Asp Tyr Trp Ala
            610             615             620

cga cca ggc ccc ttc tcg gac cct gtg ccg tac ctg gag gtc cct gtg    3480
Arg Pro Gly Pro Phe Ser Asp Pro Val Pro Tyr Leu Glu Val Pro Val
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cca aga ggg ccc cca tcc ccg ggc aat cca tgagcctgtg ctgagcccca     3530
Pro Arg Gly Pro Pro Ser Pro Gly Asn Pro
            645             650

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        35                  40                  45
Ser Thr Gly Phe Cys Pro Pro Leu Pro His Ser Gln Ala Asp Gln Tyr
    50                  55                  60
Val Leu Ser Trp Asp Gln Gln Leu Asn Leu Ala Tyr Val Gly Ala Val
65                  70                  75                  80
Pro His Arg Gly Ile Lys Gln Val Arg Thr His Trp Leu Leu Glu Leu
                85                  90                  95
Val Thr Thr Arg Gly Ser Thr Gly Arg Gly Leu Ser Tyr Asn Phe Thr
            100                 105                 110
His Leu Asp Gly Tyr Leu Asp Leu Leu Arg Glu Asn Gln Leu Gly Phe
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Glu Leu Met Gly Ser Ala Ser Gly His Phe Thr Asp Phe Glu Asp Lys
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Thr Trp Asn Glu Pro Asp His His Asp Phe Asp Asn Val Ser Met Thr
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Met Gln Gly Phe Leu Asn Tyr Tyr Asp Ala Cys Ser Glu Gly Leu Arg
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Ala Ala Ser Pro Ala Leu Arg Leu Gly Gly Pro Gly Asp Ser Phe His
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Thr Pro Pro Arg Ser Pro Leu Ser Trp Gly Leu Leu Arg His Cys His
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Asp Gly Thr Asn Phe Phe Thr Gly Glu Ala Gly Val Arg Leu Asp Tyr
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Gln Glu Lys Val Val Ala Gln Gln Ile Arg Gln Leu Phe Pro Lys Phe
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Ser Leu Pro Gln Pro Trp Arg Ala Asp Val Thr Tyr Ala Ala Met Val
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Val Lys Val Ile Ala Gln His Gln Asn Leu Leu Leu Ala Asn Thr Thr
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Ser Ala Phe Pro Tyr Ala Leu Leu Ser Asn Asp Asn Ala Phe Leu Ser
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Tyr His Pro His Pro Phe Ala Gln Arg Thr Leu Thr Ala Arg Phe Gln
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Val Asn Asn Thr Arg Pro Pro His Val Gln Leu Leu Arg Lys Pro Val
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Glu Gln Phe Arg Arg Arg Ala Ala Glu Asp Pro Val Ala Ala Ala Pro
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      515                 520                 525
Leu Pro Ser Leu Leu Leu Val His Val Cys Ala Arg Pro Glu Lys Pro
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1